

requested.

No new matter has been added in this Amendment. The foregoing rejections are respectfully traversed.

### **DISTINCTIONS OF THE CLAIMED PRESENT INVENTION OVER THE PRIOR ART**

The claimed present invention provides a distinguishing way to organize information by organizing and managing information relating to resources of jobs according to groups of workers performing the jobs. In particular, in view of the primary reference Fargher in col. 7, lines 34-36, Fargher does not disclose or suggest the present invention's distinguishing feature of *storing job definitions, including job resources, according to groups of workers performing the jobs*. Therefore, in contrast to the relied upon references, the present invention stores and manages resources (for example, computer resources) of jobs according to groups of workers (i.e., group by group).

For example, the job definition form 11 organizes the jobs, which include the job resources, according to the groups (Figs. 8, 9, and 36). Further, the resource management table 51 organizes the resources according to the groups. See, for example, the resource management table 51 in Fig. 25 (showing resources allocated to Groups) and the job definition form 11 in Fig. 36 (showing jobs A, B ... J allocated to Group C). Regarding column 1 of Fig. 25(A), if there is only one job for a group, then either the group or job name can be used in column 1.

#### **Claim Recitations of the Present Invention:**

To clarify the distinguishing features of the present invention, independent claims 1, 27, 30, 33 and 34 are amended. The claimed present invention is distinguishing as follows:

In contrast to the relied upon references, the present invention (as recited in amended independent claims 1, 27, 30, 33 and 34, using the recitation of claim 1 as an example) comprises:

a resource manager that stores and manages resources of jobs according to groups of workers, the resources allocated to each group (emphasis added).

Further, in contrast to the relied upon references, the present invention (as recited in

amended independent claims 1, 33 and 34, using the recitation of claim 1 as an example) comprises:

a resource manager that stores and manages resources of jobs according to groups of workers, the resources allocated to each group, each resource being further allocated for use by workers of the group in performing each job to be carried out by the group, and permission information provided for each resource;

a job monitor that monitors the jobs carried out by the groups, maintains the security of the resources allocated to the groups using the permission information, and for a first group inhibits access to the resources thereof from another group to which permission to use the resources of the first group is not allocated (emphasis added).

Support in the specification for the resource permission information can be found, for example, in the job definition form (Fig. 36, page 27, lines 14-18) and the resource management table 51 (Fig. 25 (work conditions in Fig. 25(B)) and Fig. 26; page 23, line 27 to page 25, line 25). See also page 30, line 27 to page 31, lines 7; and Figs. 25-26, and Fig. 36(A) (last 10 lines).

#### **Benefits of the claimed present invention**

The distinguishing information organization of the present invention argues against obviousness because of the following benefits:

A benefit of the distinguishing features is that permission information can be provided for each resource allocated to each group. Permission information can be, for example, member contact information to directly obtain permission from a member to use a resource, and/or information on predetermined conditions to utilize a resource. Therefore, a worker can obtain permission to utilize a resource from another worker assigned to the resource even though the worker may belong to a group without permission to use the resource. According to the present invention, if a worker who belongs to a project team can utilize a resource based on the resource permission information (for example, by contacting an authorized worker), all workers who belong to the same project team can also utilize the resource.

Another benefit of the distinguishing features is that because resource utilization is based on the job definition form, which is organized based upon the groups, it is very easy to utilize the resources even if a worker of a group is moved from one job to another job.

**PRIOR ART****Fargher**

As the primary reference, Fargher does not disclose the details of how information should be organized when planning a production schedule within a factory. Fargher discloses a method for planning a production schedule within a factory (Abstract). In particular, Fargher discloses a plan representation chosen to model the manufacturing environment. The plan representation is based on the processing capacity of resource groups within the factory. Each resource group has an associated set of processing capabilities, which every member of the group is able to perform. Since a single semiconductor manufacturing machine may perform several different processes, a machine may be a member of several different resource groups. See col. 7, lines 13-33.

Although, Fargher discloses that "a machine may be a member of several different resource groups" (col. 7, lines 25-26), Fargher discloses that the plan representation does not distinguish which resources, within a resource group, is planned to process a particular piece of work represented within a plan, so that each resource may not be allocated to a job and/or a group of workers. The representation simply commits processing time for the whole resource group to a particular piece of work (col. 7, lines 34-36). Therefore, Fargher does not disclose or suggest the present invention's distinguishing feature of storing job definitions, including job resources, according to groups of workers performing the jobs (Fig. 36, page 27, lines 14-18 of the present Application). In particular, Fargher does not disclose or suggest the claimed present invention's distinguishing feature to allocate resources according to groups of workers, for example, as in the job definition form of the present invention (Fig. 36 - showing jobs A, B ... J allocated to Group C). Using the recitation of claim 1 as an example, Fargher does not disclose or suggest the present invention's distinguishing feature of organizing and managing "resources of jobs according to groups of workers" performing the jobs (emphasis added).

**Matsuzaki**

Matsuzaki organizes information relating to product development according to jobs (Fig. 2). For example, in col. 14, lines 8-12, Matsuzaki discloses an identification code identifying a responsible member responsible to the activity (job) for exchanging inquiries with other member regarding job status. Matsuzaki discloses storing resource models, however, does not disclose or suggest the details of how resource information is or should be organized/stored. It appears that in Matsuzaki, resources would be stored and managed according to jobs. Col. 5, lines 51-

55; and col. 7, lines 25-27.

Therefore, Matsuzaki also does not disclose the present invention's distinguishing feature of organizing and managing "resources of jobs according to groups of workers" performing the jobs (emphasis added).

**Sato**

Sato discloses a group manager to classify shared information/individual information (Abstract). Therefore, Sato also does not disclose the present invention's distinguishing feature of organizing and managing "resources of jobs according to groups of workers" performing the jobs (emphasis added).

**Hoffman**

Hoffman discloses a method for determining the access privileges currently held by a database user with respect to objects in the database. In particular, Hoffman discloses automatically determining those objects to which the user has indirect access privileges. Hoffman discloses automatically determining all access groups to which the user belongs; and automatically determining those objects to which those access groups have access privileges. (Abstract).

Therefore, Hoffman also does not disclose the present invention's distinguishing feature of organizing and managing "resources of jobs according to groups of workers" performing the jobs (emphasis added).

**CONCLUSION**

Dependent claims 2-18, 25, 26 and 32 (depending, either directly or indirectly, from claim 1); 28-29 (depending, either directly or indirectly, from claim 27); and 31 (depending from claim 30) are also patentably distinguishing over the foregoing references at least due to their dependencies from the independent claims 1, 27 and 30.

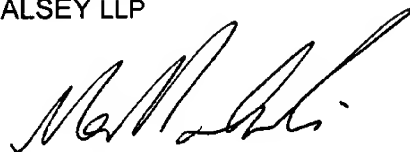
In view of the amendments and remarks presented, withdrawal of the rejection of claims 1-18 and 25-34, and allowance of claims 1-18 and 25-34 is respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Respectfully submitted,  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

Claims 1, 2, 6, and 27-34 are **AMENDED** as follows.

Recitation of all pending claims is provided for reference convenience.

1. (THREE TIMES AMENDED) A system managing resources allocated to groups of workers that carry out jobs using computers, said system comprising:

a resource manager that stores and manages resources of jobs according to groups of workers, the resources allocated to each group, [and] each resource being further allocated for use by workers of the group in performing each job to be carried out by the group, and permission information provided for each resource;

a job monitor that monitors the jobs carried out by the groups, maintains the security of the resources allocated to the groups using the permission information, and for a first group inhibits access to the resources thereof from another group to which permission to use the resources of the first group is not allocated; and

a scheduler that schedules the jobs of each group according to a procedure specific to the group and information provided by said job monitor.

2. (THREE TIMES AMENDED) The system according to claim 1, further comprising a job storage that stores a job definition form defining for each group the jobs, the form indicating rights to use the resources [for each group],

wherein said resource manager, job monitor, and scheduler exchange rights to use the resources among the groups according to the job definition form.

3. (as ONCE AMENDED) The system according to claim 1, further comprising a rearranging unit that manages and rearranges the members and resources of the groups according to progress of the jobs, wherein said job monitor monitors the jobs and resources of the groups according to information from said rearranging unit.

4. (as ONCE AMENDED) The system according to claim 1, wherein:  
an emergency group is allowed to access every resource of every group; and

said job monitor accepts any request from the emergency group for accessing a resource.

5. (as ONCE AMENDED) The system according to claim 1, wherein said job monitor performs at least one of transferring a resource from one of the groups to another group and automatically changing the resources of any one of the groups according to a procedure.

6. (TWICE AMENDED) The system according to claim 1, further comprising a request unit that, when a first group makes a request to use a resource of a second group, [requests] uses the permission information provided for the resource to contact the second group for permission to use the resource.

7. (as ONCE AMENDED) The system according to claim 6, wherein said request unit uses one of a telephone and a pager to request the second group for permission to use the resource.

8. (as ONCE AMENDED) The system according to claim 6, wherein said request unit uses one of a telephone, a notebook computer, an electronic notepad, and a workstation through one of a wide-area network, a personal computer communication network, and a wireless network to request the second group for permission to use the resource.

9. (as ONCE AMENDED) The system according to claim 6, further comprising a visual I/O unit and an audio I/O unit to request the second group for permission to use the resource.

10. (as ONCE AMENDED) The system according to claim 6, further comprising:  
an input device, attached to a selected member of the second group, for identifying and locating the member; and  
a positioning unit generating an image of the selected member, said input unit and positioning unit being used to directly request the member of the second group for permission to use the resource.

11. (as ONCE AMENDED) The system according to claim 6, wherein said job monitor holds the schedules of the jobs of the groups and exchanges the jobs among the groups.

12. (as TWICE AMENDED) The system according to claim 6, wherein said job monitor limits location, period, and each group to handle a resource, to thereby strictly maintain the security of the resource.

13. (as ONCE AMENDED) The system according to claim 6, wherein said job monitor indicates whether permission for use of the resource is to be granted upon approval of all or some of the members of the second group.

14. (as ONCE AMENDED) The system according to claim 6, wherein said job monitor adds a name of a group to which a resource belongs to a name of the resource, whereby plural resources having the same name can be allocated to the group.

15. (as ONCE AMENDED) The system according to claim 6, wherein said job monitor allocates a representative name to a set of resources and identically handles the resources under the representative name.

16. (as ONCE AMENDED) The system according to claim 10, wherein said input device is a virtual-reality device attached to the selected member, to identify the location of the member.

17. (as ONCE AMENDED) The system according to claim 10, wherein said input device is a head-mount display worn by the selected member so that the member may give permission to use the resource.

18. (as ONCE AMENDED) The system according to claim 10, wherein said input device is provided with at least one of a password and an ID, to prevent illegal access to said input device.



25. (as UNAMENDED) The system according to claim 9, wherein:  
said visual I/O unit is a television camera; and  
said audio I/O unit is a microphone.

26. (as UNAMENDED) The system according to claim 10, wherein:  
said input unit is one of a sensor and a transmitter; and  
said positioning unit is a television camera.

27. (TWICE AMENDED) A method of groupwise resource management,  
comprising:  
    storing and managing resources of jobs according to groups of workers, the resources  
allocated to each group carrying out the jobs using computers, and each resource being further  
allocated for use by workers of the group in performing each job to be carried out by the group;  
    monitoring the jobs carried out by each group;  
    maintaining security of each of the resources allocated to the groups;  
    inhibiting access to a resource of a first group from another group to which permission to  
use the resource of the first group is not allocated; and  
    scheduling the jobs carried out by each group in accordance with a procedure specific to  
the group and information provided through monitoring the jobs.

28. (ONCE AMENDED) The method according to claim 27, further comprising  
storing a job definition form defining for each group the jobs, the form [containing previously  
defined information] indicating rights to use the resources.

29. (TWICE AMENDED) The method according to claim 28, wherein the [previously  
defined information] job definition form identifies for each job carried out by each group, as  
information indicating the rights to use the resources, at least one of a job period, group  
members, processes, [and] the resources allocated to the job carried out by the group, and  
permission information of the resources.

30. (TWICE AMENDED) A computer-readable medium encoded with a program for

groupwise resource management, said program including the functions of:

- storing and managing resources of jobs according to groups of workers, the resources allocated to each group carrying out the jobs using computers, and each resource being further allocated for use by workers of the group in performing each job to be carried out by the group;
- monitoring the jobs carried out by each group;
- maintaining security of each of the resources allocated to the groups;
- inhibiting access to a resource of a first group from another group to which permission to use the resource of the first group is not allocated; and
- scheduling the jobs carried out by each group in accordance with a procedure specific to the group and information provided through monitoring the jobs.

31. (TWICE AMENDED) The computer readable medium of claim 30, the program further comprising a function of storing a job definition form defining for each group the jobs, the form indicating rights to use the resources, wherein [the previously defined information] the job definition form identifies for each job carried out by each group, as information indicating the rights to use the resources, at least one of a job period, group members, [and] the resources allocated to the job to be carried out by the group, and permission information of the resources.

32. (TWICE AMENDED) The system according to claim 2, wherein the [the] job definition form identifies for each job carried out by each group, as the information indicating the rights to use the resources, at least one of a job period, group members, [and] the resources allocated to the job to be carried out by the group, and the permission information of the resources.

33. (ONCE AMENDED) A system for managing resources used by groups of workers carrying out jobs through computers, said system comprising:

- a resource manager to [maintain allocation information indicating] store allocation of a specified resource to one or more groups of workers, to store permission information for the specified resource, and to determine whether the specified resource is available to a first group based on the allocation information; and

- a job monitor to receive from said resource manager information indicating whether the specified resource is available to the first group, and to request permission for the first group to

access the specified resource from a second group to which the resource is allocated, using the permission information of the specified resource, when the received information indicates the specified resource is not available to the second group.

34. (ONCE AMENDED) A system for managing resources used by groups of workers carrying out jobs through network clients, said system comprising:

a file storage to store files of resources and to store permission information for the resources, whereby groups of workers can access the resources through clients over a network; and

a server coupled by the network to said file storage and to the clients, said server [maintaining allocation information indicating] storing allocation of a corresponding resource to one or more of the groups, determining whether the resource is available to a requesting group based on the allocation information, and selectively changing the allocation information by using the permission information when a job [requiring] requires access to the resource [is completed].